Defense Information Systems Agency

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DISN NetOps Service Assurance 2011 Customer Conference

August 2011

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Agenda

- DISN OSS
- SERVICE ASSURANCE
- DISN ISS
- OSS Central
- Web Services

What is the DISN OSS?

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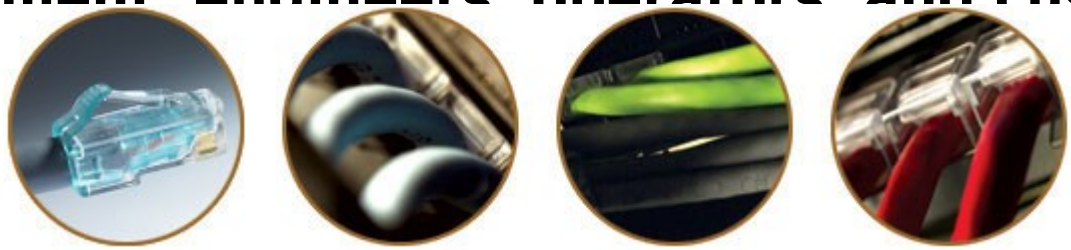
- **All the systems that automate operations, administration, maintenance, and performance (OAM&P) management functions:**
  - Service Fulfillment Functions: Inventory and Configuration Management, Order Management, Network Activation and Service Provisioning
  - Service Assurance Functions: Alarm and Fault Management, Performance Management, Incident Management, and Release Management
- **The management network that connects DISN operators, management systems and network devices**
- **Information sharing services that provide DISN service health and status information to management engineers, operators, and customers**



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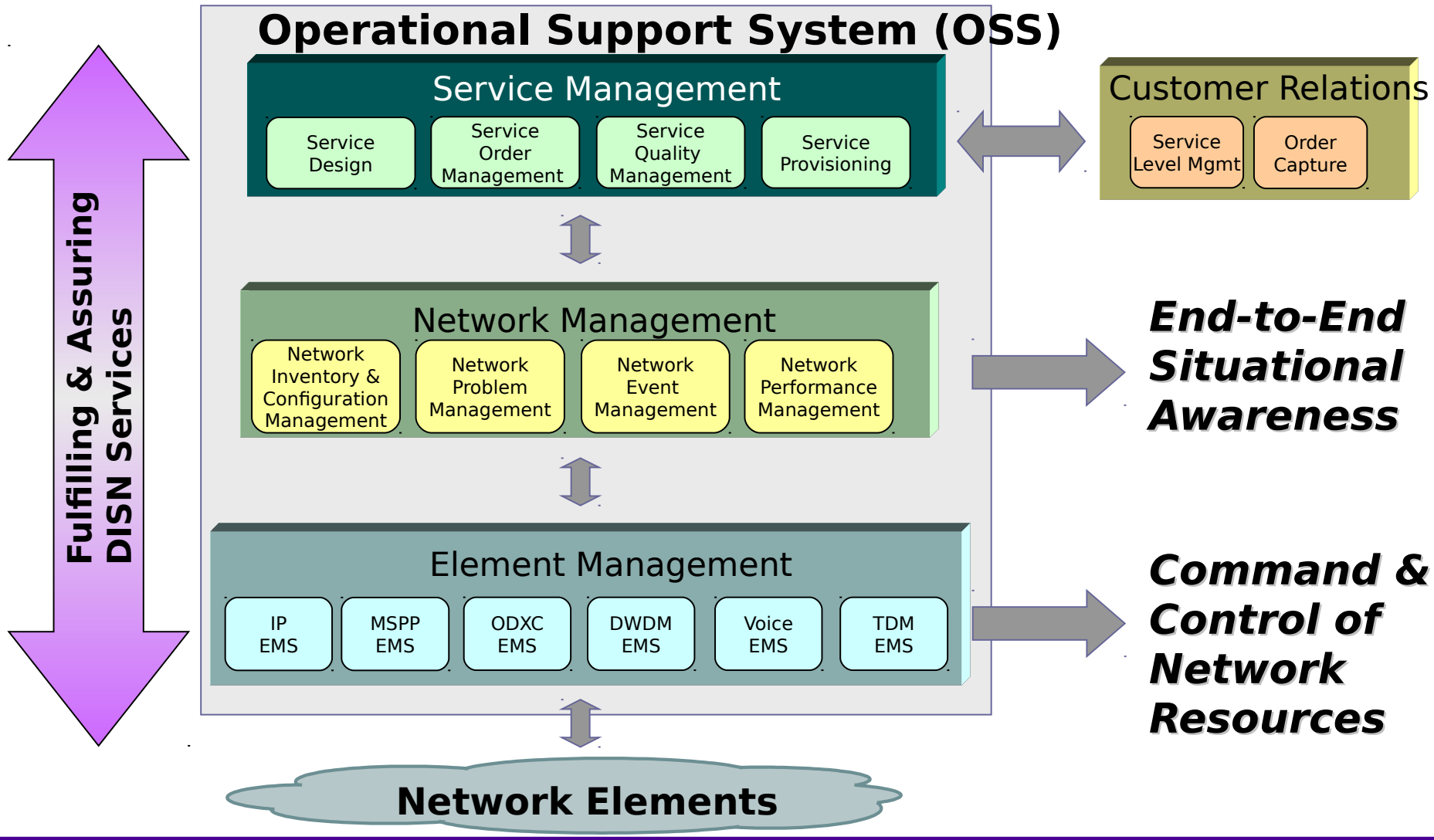
OSS Functions



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Service Assurance

- **Troubleshooting = Reactive analysis of disassociated application, control and transport data to address an incident or problem**

- **Service Assurance = Proactive monitoring and support activities to ensure that services provided to customers are continuously available and to SLA or QoS performance levels.**

- **Service Quality Management = Historical performance, incident and customer experience data correlated to quantify service quality over time**

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Service Assurance

- **What it means to the customer**
  - **Pro-active mitigation of service-affecting conditions**
  - **Enhanced service reliability over time**
  - **Less mission impact from impaired services**
  - **Help desk staff have a current, comprehensive view of service health**

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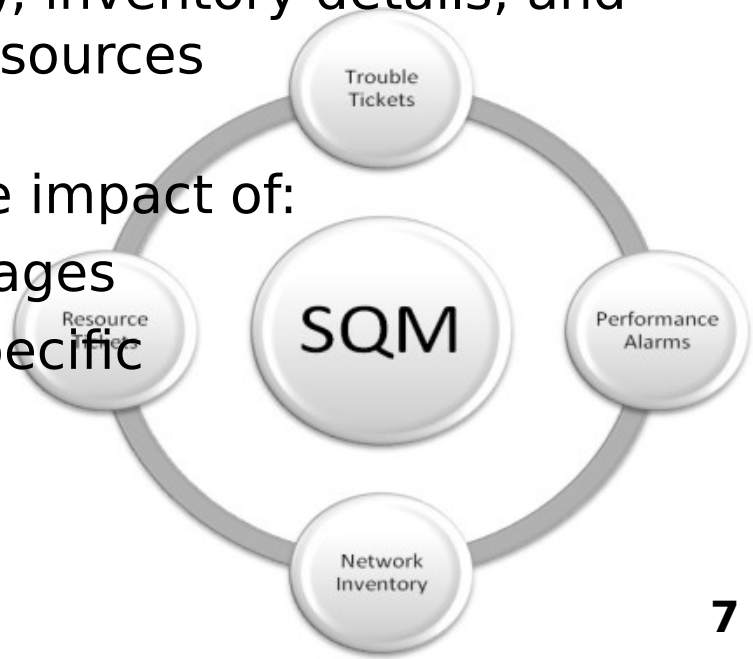
Service Quality Management

- **What is it?**
  - Service Quality Management (SQM) is the collection, analysis, and reporting of information about the customer's lifecycle experience with DISN services
  - SQM monitors and reports metrics relating to the operations of the services, such as the number of trouble reports, mean time to repair (MTTR), inventory details, and failure rates on service-providing resources
  - SQM can also be used to predict the impact of:
    - Scheduled and unscheduled outages
    - Capacity/Utilization trends for specific customers and services



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Service Quality Management

- **What it means to Customers**
  - Reduced impact of service outages
  - Improved service quality by evaluating trends from trouble ticket statistics, and QoS statistics
  - Proactively assured customer experience by evaluating existing resources, network performance and customer data
- **SQM FOC**
  - SQM attained FOC in July 2011
- **SQM Views**
  - SQM provides 4 main views
    - Trouble Ticket Repository
    - Landing Page
    - Root Cause Analysis
    - Customer Impact Analysis

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SQM Views

- **Trouble Ticket Repository** provides views of the following associated with a device:
  - Fault Alarms
  - Performance Alarms
  - Open Trouble Tickets

Selecting the device provides detailed configuration data from NCCM inventory

- **Landing Page** provides metric views for service-providing resources such as:
  - Number of trouble reports
  - Mean-time to repair (MTTR)
  - Failure rates

Users can have a CCSD and Services Dashboard to monitor service and circuit level availability in near real time, or over a user specified period of time.

- **Root Cause/Customer Impact Analysis** provide views of associate services with network resources for:
  - Customer and service impact when resources fail

DISN Info Sharing System – What is it?

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- **Provides both M2M and H2M methods of sharing DISN OSS data**
- **A strategic capability for Net-Centric Operations Warfare**
- **An enabler of**
  - **The Joint Concept of Operations (JCONOPS) for NetOps**
  - **DoD CIO NetOps Strategic Vision**
  - **GIG Enterprise Management (DoDI 8410.02)**
- **Discoverable & consumable data about the health & status of the DISN**
- **Centralized portal of DISN information**
- **E-bonding with customers, providers, & suppliers**

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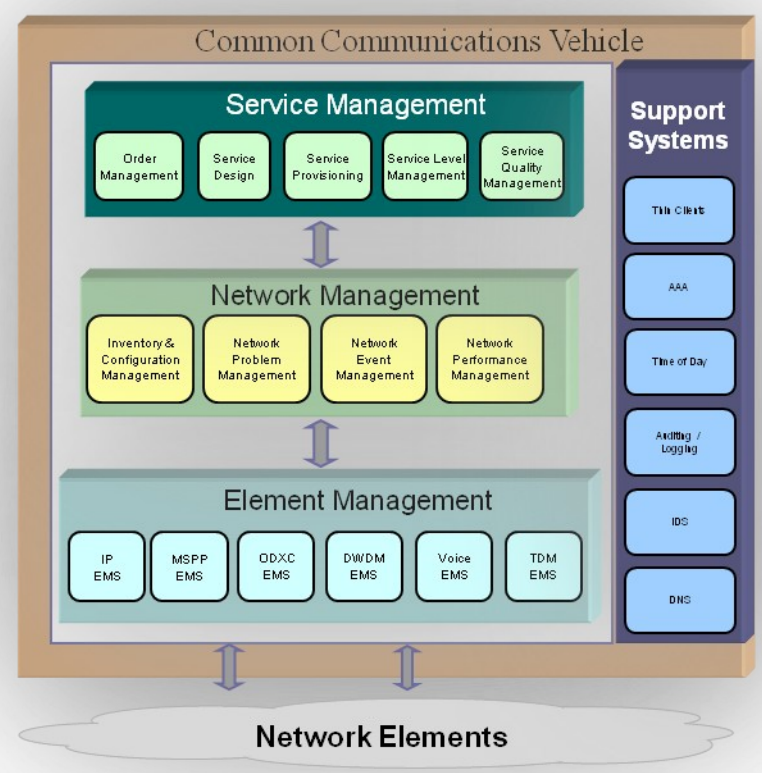
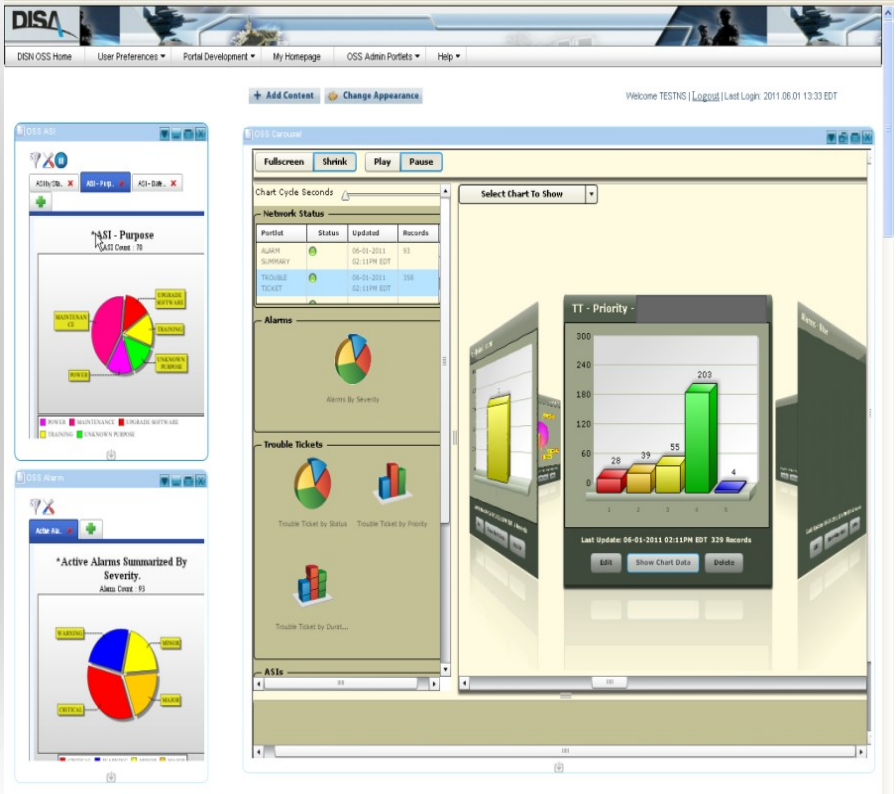
Information Sharing Services





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Customer Benefits

- **Better end-to-end situational awareness of DISA's component of the GIG**
- **A scalable and more agile management infrastructure that can better adapt to varying mission requirements**
- **Human readable and machine readable modes to fit the appropriate operational model**

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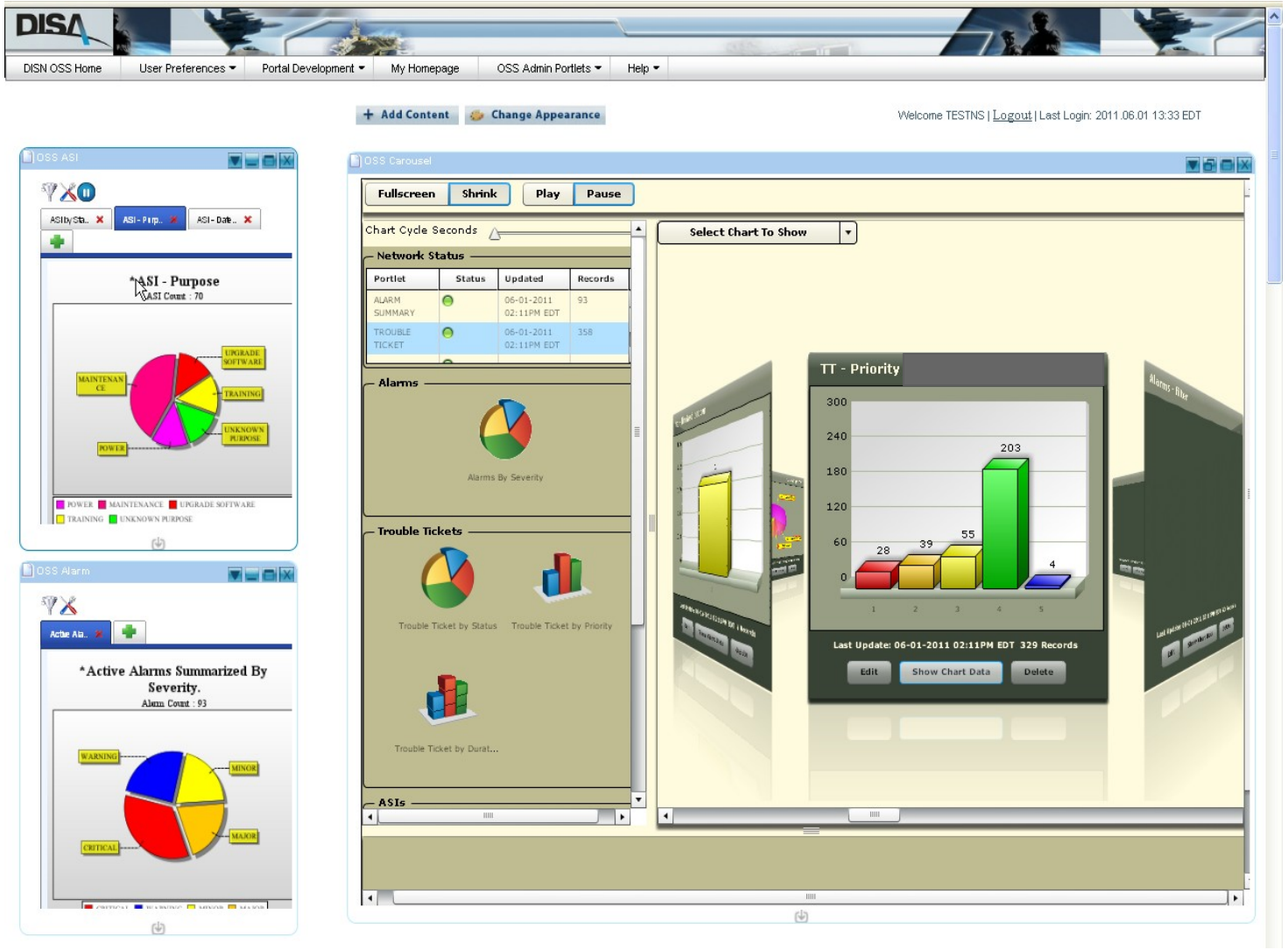
H2M - OSS Central



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OSS Central Features

- Trouble Ticket, ASI, Alarm, Resource Inventory, Order Status and Service Inventory portlets
- Content aggregation, with a common, unified view across all content
- Personalization, with persistence that tailors the content and portal layout to a user's preferences
- Single sign-on with ABAC and authorization for accessing all information
- Detailed logging and reporting to audit user activity for specific features and content

OSS Central Roadmap

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RELEASE NUMBER AND DATE

Aug 31, 2011

R6.0

Existing Portlets

- Incident Management (I)
- Order Status (E)
- Graphical Circuit View (E)
- SQM (I)
- DVB-RCS (I)

Future Releases

- OSS-C Web Portlet (Completion Reports)
- OSS-C Announcement (OM/SQM/NCCM)
- RMS – RF Report
- SDLC Evaluation Review
- ASI Portlet (E) Phase 1 & 2

LEGEND:
(I) Initial
(E) Enhanced

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M2M - Web Services

- **Enable Services and COCOMS to consume DISN data to complete their “SA picture” using their own tools**
- **Standards based collection of web services for sharing the following types of data**
  - **Alarm**
  - **Performance**
  - **Resource Inventory**
  - **Service Inventory**
  - **Trouble Ticket**
  - **Authorized Service Interrupts (ASI)**
- **All Web Services are offered at the SECRET classification level**
- **Published on the Metadata and Service Registries**
- **User guide published on the Metadata Registry**
- **Are used by the DISN OSS portlets (we use them too!!)**

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Web Services Timeline

Information Sharing Service	Availability Date
Alarm	Available Now
Authorized Service Interrupt	July 2011
Trouble Ticket	Available Now
Router Configuration	Available Now
Resource Inventory	Available Now
Performance	Available Now (daily IP snapshot)
Service Inventory	Available Now

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Other DISN OSS Components

Global Trouble Management System (GTMS)

- **A single, global incident management system for all DISN incidents**

Integrated Network Management System (INMS)

- **A single, global network management system for all DISN technologies**

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QUESTIONS

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